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Stratigraphy and Correlation of the Chalk Group seen in the Berkshire Downs LOCAR boreholes

Integrated Geoscience Surveys (Southern England) Programme

Internal Report IR/03/035

BRITISH GEOLOGICAL SURVEY

INTERNAL REPORT IR/03/035

Stratigraphy and Correlation of the Chalk Group seen in the Berkshire Downs LOCAR boreholes

M A Woods

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Foreword

This report summarises the stratigraphical details and correlation of six cored boreholes drilled in the Chalk Group of the Berkshire Downs as part of the LOCAR (Lowland Catchment Research) project.

Acknowledgements

D K Buckley (BGS Wallingford) kindly supplied copies of geophysical logs detailed in this report.

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Summary

Six cored boreholes drilled in the Chalk Group of the Berkshire Downs as part of the LOCAR (Lowland Catchment Research) Project show a stratigraphical range from the upper New Pit Chalk Formation to the upper Seaford Chalk Formation. A combination of lithological, geophysical and macrofossil criteria can be used to correlate the successions. These correlations show that the top of the Lewes Nodular Chalk is diachronous, but below the correlative horizon of Shoreham Marl 2, which marks the top of the Lewes Nodular Chalk in Sussex. There is some evidence to suggest that the chalk found in the Boxford Borehole may have been affected by shearing.

1 Introduction

During the summer and autumn of 2002 a suite of boreholes was drilled and geophysically logged in the Chalk Group of the Berkshire Downs as part of the LOCAR (Lowland Catchment Research) Project. Six of these boreholes were also cored and lithologically logged, and it is the stratigraphy of these that is discussed herein. The boreholes are:

Trumplett's Farm (PL10)	[SU 513 751]	SU57NE72*
Frilsham Meadow (PL11E)	[SU 538 739]	SU57SW104*
Broadfield Cottages (PL 13A)	[SU 549 749]	SU57SW112*
Boxford (PL26G)	[SU 428 725]	SU47SW191*
Grimsby Wood (PL14B)**	[SU 514 719]	SU57SW114*
Frogmore Farm (PL02)	[SU 586 719]	SU57SE198*

(*: BGS borehole index number appearing in SOBI (Single Onshore Borehole Index))

(**: borehole also cored Tertiary strata between 13.85 m and 30.0 m depth)

The boreholes are confined to a relatively small geographical area and, with the exception of the Boxford Borehole, form a cluster in the south-western diagonal half of grid square SU57 (Figure 1). The BGS Banterwick Barn No. 2 (cored) Borehole [SU 5134 7750] also falls within this vicinity, and is a key reference point for the interpretation and correlation of the above borehole successions (Figure 2). The detailed lithological logs of the boreholes are shown in Figs 3 to 8.

In this report, the term 'marl' means clay-rich chalk. Author citations for fossil species are detailed in Appendix 1.

2 Criteria for correlation

Correlation of the boreholes is based on geophysical, lithological and macro-fossil evidence. For each of these data types, particular criteria were used to establish correlations between the successions. These are discussed in turn below.

2.1 GEOPHYSICAL CRITERIA

Borehole resistivity logs have proved valuable in the recognition of Chalk Group formations and marker-beds (e.g. Mortimore, 1986). This technique has previously been described with respect to the correlation of Chalk Group successions in the Berkshire Downs (Woods, 2001), and is not reiterated in detail herein. For the boreholes examined in this study, the key criteria for establishing a correlation were:

- ▶ Recognition of the sharp low resistivity peak equating with the higher of two marker marls seen in the Banterwick Barn No. 2 Borehole (seen near the base of the Broadfield Cottages Borehole & labelled 'A' on Fig. 2).
- ▶ Recognition of the sharp low resistivity peak corresponding to the Fognam Marl
- ▶ Recognition of the sharp high resistivity peak equating with the hardgrounds and indurated chalk that comprise the 'Chalk Rock'.
- ▶ Recognition of a group of 4 low resistivity peaks labelled 'B' on Fig. 2.
- ▶ Recognition of a group of 4 low resistivity peaks labelled 'C' on Fig. 2.

2.2 LITHOLOGICAL CRITERIA

The boreholes examined in this study can be characterised by five main lithological features:

- ▶ The occurrence of very frequent and relatively thick marl seams (only seen in the lower part of the Trumpletts Farm Borehole; Fig. 2).
- ▶ The occurrence of beds of intensely hard chalk and hardgrounds (seen in core from Trumpletts Farm, Broadfield Cottages and the Boxford Borehole; Fig. 2).
- ▶ The occurrence of hard, nodular, rough-textured chalk (seen in all of the boreholes, and indicated by pink shading on Fig. 2).
- ▶ The occurrence of chalk with very few marl seams in the upper part of the Trumpletts Farm, Broadfield Cottages, Frilsham Meadow and Boxford boreholes.
- ▶ The occurrence of spongiferous chalk in the upper part of the Trumpletts Farm and Broadfield Cottages boreholes.

2.3 FAUNAL CRITERIA

Three main faunal criteria can be used to correlate the above borehole successions:

- ▶ The total range of *Platyceramus*.
- ▶ The total range of *Volvicceramus* (including *V. involutus*).
- ▶ The total range of *Cremnoceramus*.

Additionally, the occurrence of *Micraster normanniae* in the Trumpletts Farm and Broadfield Cottages boreholes assisted in correlating these successions.

3 Interpretation

Combining the above criteria allows the borehole successions at Trumpletts Farm, Broadfield Cottages, Frilsham Meadow and Boxford to be correlated and lithostratigraphically interpreted (Fig. 2). The stratigraphical range of these boreholes is from the upper New Pit Chalk Formation to the upper Seaford Chalk Formation. The interpretation of the Grimsby Wood and Frogmore Farm boreholes is discussed separately (3.4 below).

3.1 NEW PIT CHALK FORMATION

The New Pit Chalk Formation is typically moderately weak chalk with common marl seams and sparse flint nodules. The only borehole core that samples this formation is in the basal part of the Trumplett's Farm succession. However, this interval can also be recognised in the basal part of the geophysical log for the Broadfields Cottages Borehole, which contains a marker ('A' on Fig. 2) that can be correlated with the New Pit Chalk in the Banterwick Barn Borehole. The lowermost part of the geophysical log for the Frilsham Meadow Borehole may also penetrate the top of the New Pit Chalk.

3.2 LEWES NODULAR CHALK FORMATION

The Lewes Nodular Chalk Formation is typically hard, nodular chalk with common flints. In the Berkshire Downs, the basal interval is characterised by a suite of hardgrounds and very indurated chalk ('Chalk Rock'), which is easily recognised in borehole core and on geophysical logs (Fig. 2). However, in the Trumplett's Farm Borehole, there appears to be a thicker interval of hard, nodular chalk below the 'Chalk Rock' than seen in the Banterwick Barn Borehole (Fig. 2; Woods & Aldiss, *in prep.*).

In the Berkshire Downs, the top of the Lewes Nodular Chalk is rather gradational, and difficult to recognise. Previous borehole correlations suggested that a pronounced inflection in the resistivity log could be used to infer the top of nodular chalk facies, and thus the top of the Lewes Nodular Chalk Formation (Woods, 2001). Work on the Banterwick Barn No. 2 Borehole (Woods & Aldiss, *in prep.*) showed that the top of the Lewes Nodular Chalk in that succession, as defined by lithology and by geophysical signature, is below the horizon of Shoreham Marl 2 which marks the top of the Lewes Nodular Chalk in the Sussex stratotype succession (Mortimore, 1986). Correlation of the LOCAR boreholes has added to the information about how the top of the Lewes Nodular Chalk is developed in the Berkshire Downs. The following are the key points relating to the Trumplett's Farm, Broadfield Cottages, Frilsham Meadow and Boxford boreholes:

- ▶ The geophysical inflection inferred to represent the horizon of the Shoreham Marl 2 in the Banterwick Barn Borehole can be correlated through the boreholes (Fig. 2). This horizon is the lowest of a set of four geophysical markers ('B' on Fig. 2) that can be used to correlate the boreholes.
- ▶ The top of the Lewes Nodular Chalk defined by the development of nodular facies in the borehole core is diachronous, but below the marker representing Shoreham Marl 2. However, the top of nodular chalk facies is almost coincident with the inferred horizon of Shoreham Marl 2 in the Broadfield Cottages Borehole.
- ▶ A pronounced geophysical inflection that, in the absence of other data, might be used to recognise the top of the Lewes Nodular Chalk, is present in the boreholes (labelled and marked in blue on Fig. 2). This inflection is simply picked at a conspicuous change in the borehole resistivity log signature, and is not intended to represent the same stratigraphical level in each borehole. This inflection is approximately coincident with the top of nodular chalk facies in the Trumplett's Farm, Broadfield Cottages and Boxford boreholes, but is below the top of nodular chalk facies in the Frilsham Meadow Borehole.

Within the Lewes Nodular Chalk, the horizon of the Fognam Marl (= Southerham Marl 2 of Gale, 1996) can be identified in the core of the Trumplets Farm Borehole, and recognised in the geophysical logs of the Broadfield Cottages and Frilsham Meadow Borehole. In the Trumplets core, this marl has the typical thick, plastic texture and abundance of *Labyrinthidoma* (= *Coskinophragma* of Mortimore, 1986) that is distinctive of the Fognam Marl / Southerham Marl 2. Slightly higher in the Trumplets Borehole succession, an acme of *Cremnoceramus* ex gr. *walterdorfensis*, associated with a closely spaced marl pair in strongly indurated chalk is suggestive of the paired Navigation Marls and associated Navigation Hardground. This horizon marks the approximate position of the Turonian / Coniacian boundary in the succession.

3.3 SEAFORD CHALK FORMATION

The higher part of the successions in the Trumplets Farm, Broadfield Cottages, Frilsham Meadow and Boxford boreholes is inferred to belong wholly to the Seaford Chalk Formation. However, as already discussed, the basal part of this interval in these boreholes, falling below the inferred horizon of Shoreham Marl 2 (Fig. 2), actually equates with the higher part of the Lewes Nodular Chalk Formation in Sussex. Common marl seams, *Volvicceramus* and *Platyceramus*, seen in all of the aforementioned boreholes, can be equated with the lower part of the Seaford Chalk in the type Sussex succession. However, lack of macrofossils from the higher part of these successions makes formational assignment less certain. The Frilsham Meadow Borehole is close to a chalk pit [SU 5134 7750] which showed *Cladoceramus undulatoplicatus*, indicative of the middle part of the Seaford Chalk (and the Coniacian / Santonian boundary), just below the contact with Tertiary strata (Woods, 2000). *C. undulatoplicatus* also possibly occurs in an old chalk pit near Trumplets Farm [SU 5089 7498] (Woods, 2000). If this is also the approximate horizon of the top of the Frilsham Meadow and Trumplets Farm boreholes, then based on the borehole correlation shown in Fig 2, there is only likely to be a further 20 m or so of stratigraphically younger strata present in the Broadfield Cottages and Boxford boreholes, making assignment to the Seaford Chalk seem reasonable. However, faunal evidence from the Faircross Borehole [SU 6972 6322] shows that the higher part of the Seaford Chalk is locally condensed, raising the possibility that at least the top of the Broadfield Cottages succession might include the basal Newhaven Chalk. This question could be resolved by examination of micro-fossil samples from this interval.

In the Boxford Borehole, there is implied expansion of the interval between the 'Chalk Rock' and the base of the group of geophysical markers in the Seaford Chalk labelled 'B' on Fig. 2. This is based on the core and partial correlation of the geophysical log with adjacent boreholes. Extensive core loss in the lower part of the Boxford Borehole means that fixing the precise horizon of the 'Chalk Rock' is problematic. This could be resolved if the Boxford resistivity log extended lower in the succession, but obstructions in the borehole mean that this is not possible at present (D K Buckley, *pers. comm.*, 2003). If expansion is present in this interval, then a sedimentary or structural cause (or combination of the two) seems most likely. Interestingly, there is a pronounced high gamma peak around 50 m depth on the geophysical log for the Boxford Borehole. The coincidence of this peak with a pronounced low value peak on the resistivity log for this borehole might suggest a marl-rich interval. This is the case for a similar peak at 28m depth, but the only marl in the core around 50 m depth is a 20 mm thick seam at 49.35 m. However, the core at 50 m depth is highly fragmented, and conspicuously stained with iron. These features may explain the geophysical signatures, and could be caused by a fault zone or shear horizon. Sheared and slumped strata are known to locally occur in the Seaford Chalk at outcrop in the nearby Boxford Pit [SU 431 719], locally causing inversion of the succession (Mortimore et al., 2001). Pronounced faulting in the succession might also explain the very poor core recovery from the Boxford Borehole.

A final point of interest in the borehole correlation is the presence of a bed of hard, rough-textured chalk at c. 21 m depth in the Broadfield Cottages Borehole. This horizon is marked by a high value peak on the resistivity log, and it is tempting to speculate that this is equivalent to a hard bed locally mapped in the higher part of the Seaford Chalk in the Berkshire Downs.

3.4 FROGMORE FARM AND GRIMSBY WOOD BOREHOLES

Relatively short intervals were cored in these two boreholes. Neither has any distinctive lithological or faunal characteristics, and for this reason they are considered separately from the previous boreholes. The moderately weak to moderately strong, flinty chalk seen in the two boreholes is consistent with assignment to the Seaford Chalk Formation, and the sparsity of fauna compares with the higher part of the Seaford Chalk seen in the cores of the Trumplett's Farm, Broadfield Cottages, Frilsham Meadow and Boxford boreholes. The Grimsby Wood Borehole, in which Tertiary strata occur to a depth of at least 30 m, is also relatively close to an old chalk pit [SU 5396 7292] where the highest chalk seen below the Palaeogene contact belongs to the middle Seaford Chalk (Woods, 2000).

4 Conclusions

The LOCAR cored boreholes can be correlated using a combination of geophysical, lithological and macro-fossil criteria. These correlations show that the succession in the boreholes ranges from the upper New Pit Chalk Formation to the upper Seaford Chalk Formation. The top of the Lewes Nodular Chalk is diachronous, but generally below the inferred horizon of the Shoreham Marl 2. In the Frilsham Meadow Borehole, there is some discrepancy between what might have been assumed to be the geophysically defined top of the Lewes Nodular Chalk, and the actual top defined on lithology. In the Trumplett's Farm Borehole, the Lewes Nodular Chalk appears to extend to a lower stratigraphical horizon than in the Banterwick Barn No. 2 Borehole. There is some tentative evidence that the Boxford Borehole succession might have been affected by faulting / shearing.

Appendix 1 - author citations for fossil species

Cladoceramus undulatoplicatus (Röemer, 1855)

Cremnoceramus waltersdorfensis (Andert, 1911)

Micraster normanniae Bucaille, 1883

Volviceramus involutus (J de C Sowerby, 1828)

References

Most of the references listed below are held in the Library of the British Geological Survey at Keyworth, Nottingham. Copies of the references may be purchased from the Library subject to the current copyright legislation.

GALE, A S. 1996. Turonian correlation and sequence stratigraphy of the Chalk in southern England. In HESSELBO, S P & PARKINSON, D N (eds), *Sequence Stratigraphy in British Geology, Geological Society Special Publication*, No. 103, pp. 177-195.

MORTIMORE, R N. 1986. Stratigraphy of the Upper Cretaceous White Chalk of Sussex. *Proceedings of the Geologists' Association*, 97, 97-139.

MORTIMORE, R N, WOOD, C J & GALLOIS, R W. 2001. British Upper Cretaceous Stratigraphy, *Geological Conservation Review Series*, No. 23, Joint Nature Conservation Committee, Peterborough.

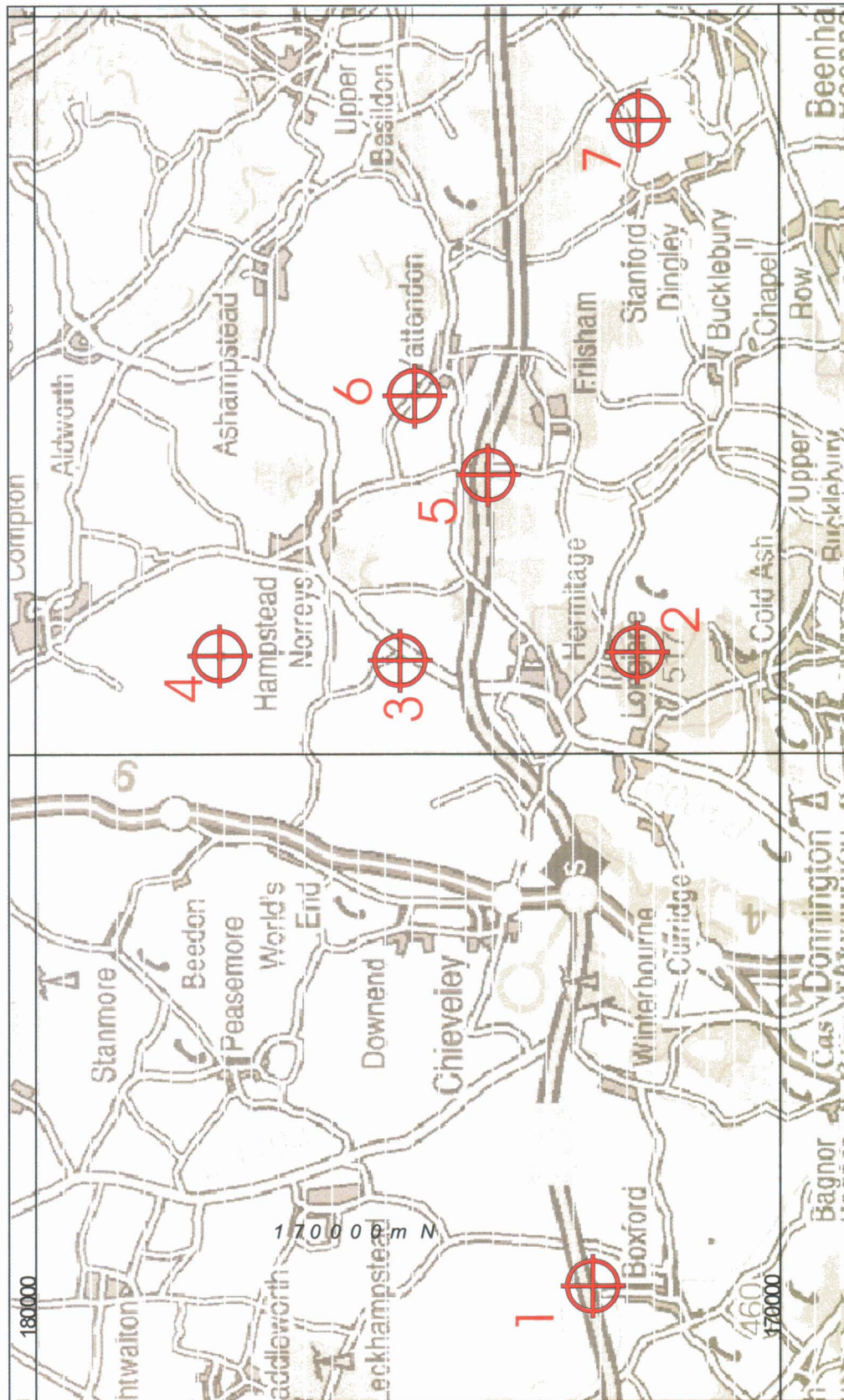
WOODS, M A. 2000. Chalk macrofossils from the Hungerford - Newbury district, and adjoining areas: 1:10 000 quarter sheets: SU38SE, SU46NE, SU47NE, SW, SU57SW, SU58SW. *British Geological Survey Internal Report*, IR/00/48.

WOODS, M A. 2001. Lithostratigraphical interpretation of borehole geophysical logs in the Chalk Group of the Berkshire Downs. *British Geological Survey Internal Report*, IR/01/150.

(National Grid Intercepts)

180 000

170 000



450 000

460 000

FIGURE 1. Location of the cored LOCAR boreholes and the Banterwick Barn No. 2 Borehole in the Berkshire Downs

KEY

- 1: Boxford Borehole
- 2: Grimsby Wood Borehole
- 3: Trumpletts Farm Borehole
- 4: Banterwick Barn No. 2 Borehole
- 5: Frilsham Meadow Borehole
- 6: Broadfield Cottages Borehole
- 7: Frogmore Farm Borehole

(National Grid Intercepts)

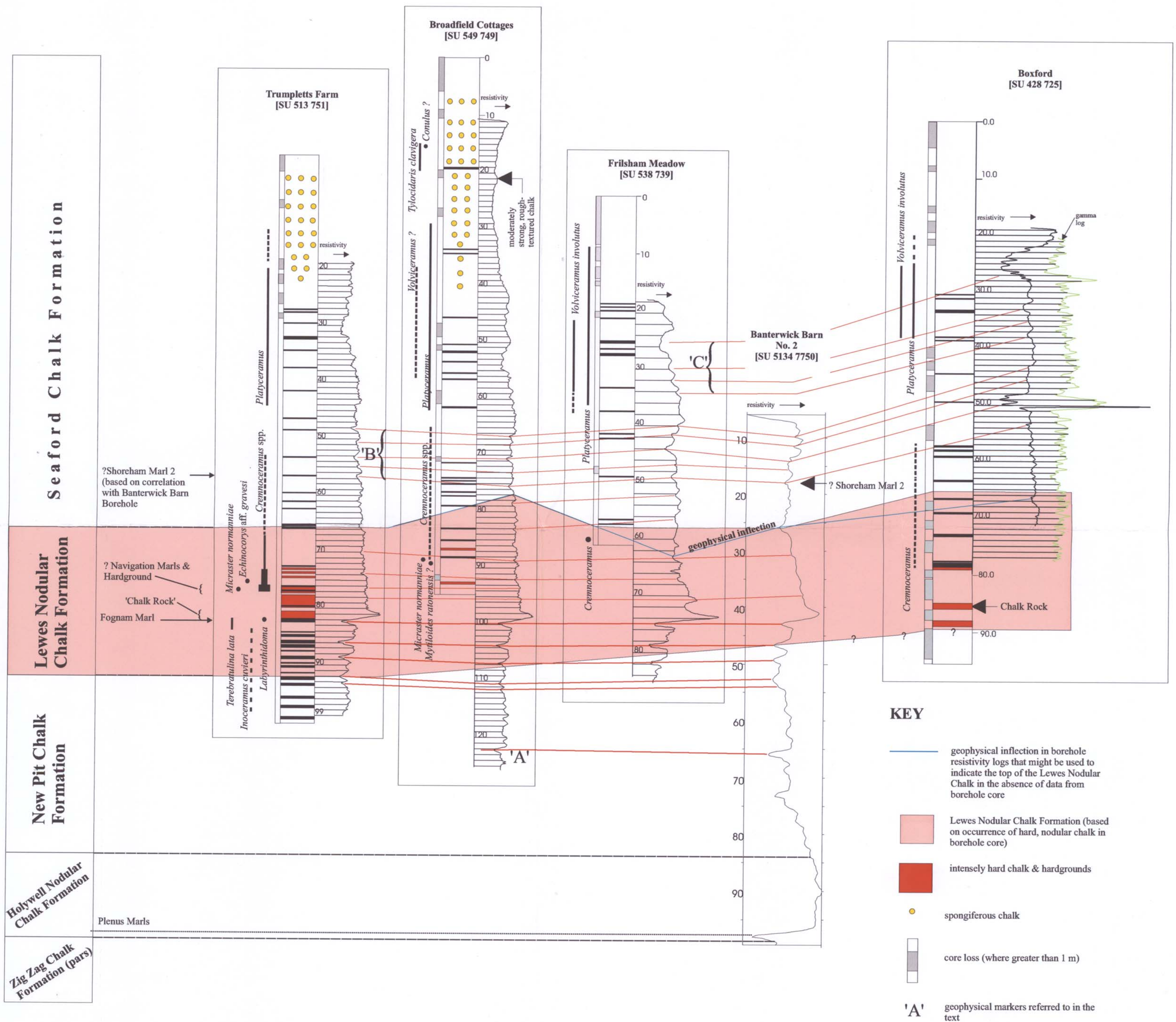


FIGURE 2. The correlation and lithostratigraphical interpretation of the main cored LOCAR boreholes

Key to symbols used on lithological log





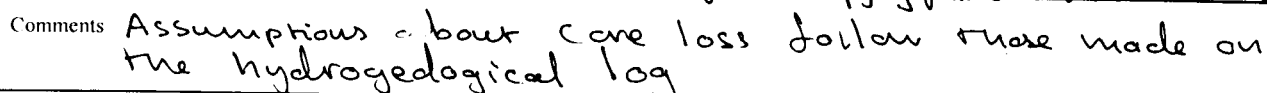
	nodular flint
	sheet flint
	marl
	shell fragments
	nodular chalk
	<i>Zoophycos</i>
	spongiferous chalk
	fault or fracture
	stylolitic marl
	strongly indurated
	bioturbation (where especially conspicuous)
	strongly iron-stained chalk
	glauconitised clast
	phosphatic clast
	hardground
	sandy chalk

FIGURE 3: Lithological log of the
Boxford (cored) Borehole [SU 428 725]





Borehole No. PL26G

Sheet 2 of 19

NGR/lat & long

Ground level

Logged by

$$20 \text{ cm} = 5 \text{ m}$$

Depth (m) below Ground level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
5.0						Weak, smooth-textured, white CHALK with small, medium and large nodular flints. Higher part of run (down to 5.54) comprises very weak, 'putty' chalk. Small oyster fragments	
6.0	② 6.0-7.50						
7.0						Moderately weak, smooth-textured, white CHALK, with medium and large sized flint fragments. Locally pale yellowish white CHALK at 7.20.	
8.0	③ 7.50-10.10						
9.0						Small nodular flint fragments preserving <i>Triceraamid</i> shell. Oyster fragments at 8.80 & 9.12.	
						Moderately weak, smooth-textured white CHALK with pale yellowish-orange banding running through it. Very large flint at 9.50.	
						Fragments of large nodular flint Core much more fragmented from 9.50-10.10. Locally comprises 'putty' chalk.	
10.0							
Comments: Core remains from sampled interval at 5.24-5.41							



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Project LOCAR

Borehole No. PLZGG

Locality Name Buxford

Sheet 3 of 19

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

MAW

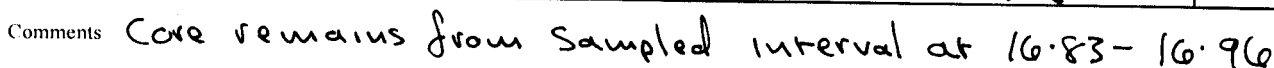
Scale

20cm = 5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
10.0							
	④ 10.10 - 11.95						
11.0						Moderately weak, smooth-textured, white CHALK with locally developed pale orangey-yellow discoloration. Small nodular flint fragments. Occasional oysters. Very fractured core from 11.30-11.80	
12.0						No Core	
	⑤ 12.15 - 14.65						
13.0						Moderately weak, smooth-textured white flinty CHALK with locally developed pale orangey-yellow bands of discoloration. Massive flint at 12.80, 70mm thick & occupying full width of core.	
14.0							
	⑥ 14.65 - 17.65						
15.0							

White Chalk Subgroup
? Seaford Chalk

Comments





Borehole No. PL26G

Sheet 5 of 19

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

Scale

MAN

$$20 \text{ cm} = 5 \text{ m}$$

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
20.0						that might represent <u>Platyceras</u>	
21.0	⑧ 20.65 - 22.65						
22.0						massive flint c. 100mm thick & occupying full core width Moderately weak, highly fractured flinty CHALK. Locally 'putty' chalk. Pale orange-yellow staining becomes stronger down to 22.55.	
23.0	⑨ 22.65 - 24.15					Very strongly orange-stained chalk from 22.55-22.65, then becoming less orange-stained to 23.30m. Below 23.30m patchy orange-stained chalk occurs. Core remains highly fractured down to 24.15. Very poorly fossiliferous. Locally (e.g. 22.65-22.80) chalk appears completely deconstructed. Small fragments of very hard chalk around 23.20.	
24.0	⑩ 24.15- 25.15						
25.0						Deconstructed and highly fragmented pale yellowish-white CHALK.	
Comments Core remains from sampled interval at 22.96-23.08							



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Project **LOCAR**

Borehole No. **PL2GG**

Locality Name **Boxford**

Sheet **6 of 14**

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

MAW

Scale

20cm = 5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
25.0							
	⑪ 25.15						
	26.65						
26.0						Highly fragmented & locally deconstructed CHALK down to 26.30. Much more fossiliferous, with <i>Valviceramus involutus</i> at 25.60 & <i>Platyceramus</i> at 26.47. Local patches of strong Chalk Very thin wispy grey marl	" " "
						Below 26.30, Chalk forms more intact core.	
						More intact core in lower part of run comprises moderately weak to moderately strong, pale orange-yellow colour banded CHALK	
	⑫ 26.65						
27.0	28.15					broken-up nodular flint fragments Deconstructed Chalk in top of run, becoming moderately intact core from 26.97- 27.18. Below 27.18 highly fragmented core.	" " "
						Chalk fragments comprise moderately weak to moderately strong, smooth- textured Chalk with locally developed pale orange colour banding Thin marl plexus at 27.13.	
28.0							
	⑬ 28.15					Thick shelled <i>Platyceramus</i> (>5mm thick) Core much more intact than seen previously above. Moderately weak to moderately strong, smooth-textured flinty CHALK. Locally developed pale yellow-orange colour banding. Very thin wispy marl	
	29.65						
29.0						large <i>Platyceramus</i> shell fragment Core very orange-stained around 29.10	
	⑭ 29.65					large nodular flint c. 7mm thick & occupying most of core diameter	
30.0	31.15						

Comments

NB: Core loss recorded on 'hydro' log at top of Run 14 is not
consistent with sample at stated depth of 30.38-30.63. This
has been resolved by assuming core loss to be at base of
Run 14 on the above log.



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Project **LOCAR**

Borehole No. **PL26G**

Locality Name

Sheet **7 of 19**

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

MAW

Scale

20cm = 5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
30.0						Core from 29.65-30.30 is highly fragmented. From 30.30 to base of run, core much more intact.	
						4mm marl	
						Moderately weak, yellowish-cream, flinty CHALK with well developed marl seams.	
						Chalk becomes rough-textured, below 30.70. Fragmented core in top of Run includes fragments of moderately strong Chalk.	
31.0						Common shell fragments of <u>Platyceramus</u> & locally <u>Volvicetanus involutus</u> .	
	(15)					50mm marl	
	31.15						
	32.65						
32.0						Huge nodular flint (up to 150mm thick) occupying most of core diameter. Core highly fragmented from 31.70-32.0	
						Locally very coarse-textured, weakly nodular horizon.	
						Moderately weak to moderately strong, pale, yellowish-cream, flinty CHALK.	
						<u>Platyceramus</u> shell fragments	
						Fragments of medium grey marl in sample from core catcher.	
	(16)						
	32.65					Fragments of moderately strong, weakly nodular CHALK.	
33.0						marly bioturbated chalk horizon →	
	34.15					70mm thick, medium-grey marl	
						Moderately strong, rough textured, weakly nodular, creamy-white CHALK, with flints & marl seams.	
34.0						Moderately weak, smoother-textured Chalk below sampled interval to base of Run 16.	
	(17)						
	34.15						
	37.00						
35.0						Moderately strong, coarse-textured, weakly nodular horizon.	

Comments

Project LOCAR

Borehole No. PL 26 G

Locality Name Boxford

Sheet 8 of 19

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

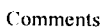
Scale

MAW

$$Z_{O_{cm}} = \frac{Z_{cm}}{S_m}$$

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
35.0						Moderately Strong to moderately weak, Parchily spongyferous, pale yellowish-cream coloured CHALK	
						More indurated, weakly nodular horizon	
36.0						Moderately intact core	
						Stylolitic marl	
37.0						Platyceramus shell fragments in locally more indurated, parchily spongyferous Chalk. Core becomes highly fragmented from 36.70 to base of Run 17	
						Flint nodules in non-intact core	
	(18)					Moderately strong, locally weakly nodular and spongyferous, creamy-white CHALK, with flints and common marl seams.	
37.0 — 40.0							
38.0						Rough-textured, poorly nodular chalk. Moderately strong to strong CHALK. ? Platyceramus shell fragments patches of more indurated chalk	
39.0						Volvicoramus involutus? (fragment)	
40.0						Moderately strong, rough-textured, weakly nodular CHALK	

Comments





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Project **LOCAR**

Borehole No. **PL26G**

Locality Name **Buxford**

Sheet **10 of 19**

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

MAW

Scale

**20cm -
5m**

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
45.0	(22)			White Chalk Subgroup Sedford Chalk			
44.75							
47.75							
46.0							
47.0							
						Rubble of large nodular flints (up to 150mm)	
48.0	(23)						
47.75- 50.55							
49.0						Rubble of flint fragments (up to 80mm) and large fragment of strong rough-textured, creamy-white chalk	
						Highly fragmented core becoming less fragmented from 49.30-49.75, and then highly fragmented to base of Run 23. 20mm medium-grey plexus marl	
						Intact core locally comprises moderately strong, rough-textured, creamy- white chalk. No obvious fossils.	
						Conspicuous iron- staining	Fe Fe Fe
50.0							

Comments



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Project LOCAR

Borehole No. PL26G

Locality Name Boxford

Sheet 11 of 19

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

MAW

Scale

20cm =
5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
50.0				White Chalk Subgroup Seaford Chalk			Fe
51.0	(24) 50.55- 53.55					Rubble of flint fragments and fragments of moderately strong CHALK	
52.0						Most of core in Run 24 is highly fragmented. Larger fragments of core comprise moderately strong to moderately weak creamy white CHALK. Intact core below 53.30 is moderately strong CHALK No obvious macrofauna	
53.0						Waxy marl c. 5m thick Pair of hollow centred sheet flint.	
54.0	(25) 53.55- 56.25						
55.0							

Comments



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Project **LOCAR**
Locality Name **Boxford**

Borehole No. **PL266**
Sheet **12 of 19**

Start date
End date

Client

Borehole diameter

NGR/lat & long
Ground level

Drilling method

Casing details

Logged by
MAW

Scale
20cm = 5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
55.0				White Chalk Subgroup Seaford Chalk			
56.0						Rubble of flint fragments	
	(26)						
56.25						Moderately weak to moderately strong creamy white chalk with common marls and regular flint nodules Sparse macrofauna.	
57.0	59.25					Core run is moderately intact chalk, rather soft & smooth textured compared to that seen above.	one or more well developed plexus marls. ? <i>Cremnoceramius</i>
						35mm plexus marl	
58.0							
						internal of thin wavy marl stringers	
59.0						25mm plexus marl	
						No Core	
60.0						Rubble of nodular flints Moderately strong, rough-textured, patchy yellow-orange stained, creamy-white chalk; possible fragment of <i>Cremnoceramius</i> at 59.80.	

Comments



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Project **LOCAR**
Locality Name **Boxford**

Borehole No. **PL266**
Sheet **13 of 19**

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by
MAW

Scale
20 cm = 5 m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
60.0	(27) 59.75 60.55			White Chalk Subgroup Seaford Chalk		25mm plexus marl	
61.0						No Core	
	(28) 61.05 64.05					Rubble of nodular and sheet flint fragments	
						Moderately weak to moderately strong Creamy white Chalk with thin marls and nodular flints	
62.0						Bands of more indurated and nodular chalk with softer, less nodular Chalk in between	
						part of sheet flint up to 10mm thick	
						sheer flint c. 2mm thick	
						120mm thick marl plexus	
63.0							
						Cremnoceras at 63.24 locally conspicuous bioturbation	
						10mm dark grey marl seam underlain by thin stylolitic and wispy marls	
						45mm thick plexus marl	
64.0						Cremnoceras shell fragment at 64.0	
	(29) 64.05 67.05					Flint rubble	
						Very fragmented core down to 65.10, then much more intact below this to base of run 29.	
65.0						Thin, slightly stylolitic marls c. 1mm thick	

Comments



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Project **LOCAR**
Locality Name **Boxford**

Borehole No. **PL26G**
Sheet **14 of 19**

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

MAW

Scale

20cm = 5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
65.0				Subgroup	Seaford Chalk	Moderately weak to moderately strong, rough-textured, weakly nodular, creamy white CHALK. Common small seams and regular nodular flints	
66.0						patchily iron-stained, spongy chalk	
				White Chalk	- P - Nodular Chalk	? Zoophytes preserved as pale grey marly infill. Becoming more indurated below.	
67.0						well developed 35mm thick marl at 66.7 underlain by interval of thin wispy marl	
	(30) 67.05 69.65						
68.0							
				Leas	Nodular Chalk		
69.0						Broken up flint fragments and fragmented CHALK.	
						Solid 40mm thick marl seam, underlain by thin, wispy marls, small flint in base of marl. Moderately strong, rough-textured, weakly nodular creamy white CHALK. Patchily spongy.	
70.0	(31)					Flint rubble and highly fragmentary CHALK. Chalk fragments are rough-textured and moderately strong with pale yellowish-cream colour.	

Comments



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Project **LOCAR**

Borehole No. **PLZGG**

Locality Name **Boxford**

Sheet **15 J 19**

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

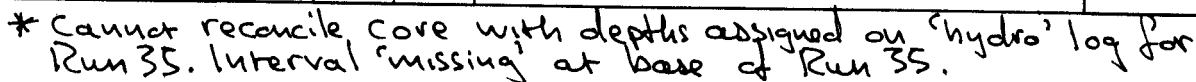
MAW

Scale

**20cm =
5m**

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
70.0	69.65- 70.25			White Chalk Subgroup	Nodular Chalk	Small interval (c. 120mm) of intact core at base of run. This chalk is locally strong and weakly nodular No Core	
71.0	(32) 70.75 - 72.25						
72.0						Flint rubble & ground-up 'putty' CHALK	
	(33) 72.25- 72.75					Flint rubble, including v. large nodular flint fragment (>150mm). Ground up Chalk between flints	
73.0						No Core	
	(34) 73.25 - 74.25					Very fragmented core, comprising moderately strong to strong, rough-textured creamy-white, nodular CHALK. 60mm plus marl at 73.65 nodular flint preserving mollusc shell fragments Patchily spongy chalk at 73.80.	
74.0						No Core	
75.0							

Comments



indurated
V. indurata



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Project

LOCAR

Locality Name

Boxford

Borehole No.

PL266

Sheet

17 of 19

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

MAW

Scale

20cm =
5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
80.0				White Chalk Subgroup Lewes Nodular Chalk			
81.0						Flint rubble No Core	
82.0							
83.0							
84.0	(37) 83- 86.0						
85.0						large nodular flint - probably not in-situ Moderately strong to strong, rough- textured, greyish/creamy-white nodular Chalk. 70mm thick mart pieces at 84.70	

Comments

* unable to reconcile core with stated core recovery & sampling recorded on 'hydro' log, gap in core is consistent with sample at 85.05-85.12, core below 85.12 is intact and does not agree with note on core recording 'core removed 85.05-85.67'



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Project

LOCAR

Borehole No.

PLZGG

Locality Name

Boxford

Sheet

18 & 19

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

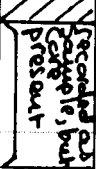
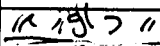



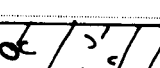
Casing details

Logged by

MAW

Scale

20cm =
5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
85.0						Highly fragmented core ?O. reedensis →	
						Strongly indurated nodular CHALK ?O. reedensis →	
86.0						intensely hard, glauconitised hardground	
	(38)						
86.0 - 89.0							
87.0							
88.0							
						glauconitised hardground Very strong, rough-textured, cream- grey, nodular CHALK with glauconitised hardgrounds	
						Small brown phosphate fragments ? glauconitised hardground →	
89.0						No Core	
90.0							

Comments



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Project **LOCAR**
Locality Name **Boxford**

Borehole No. **PLZGG**
Sheet **19 of 19**

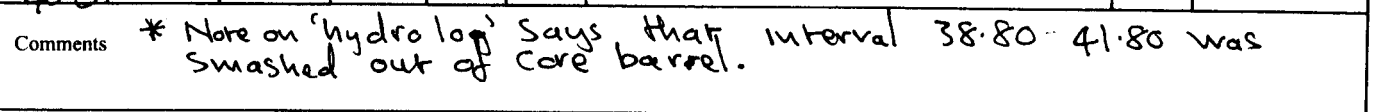
Start date	Client	Borehole diameter	NGR/lat & long
End date			Ground level
Drilling method		Casing details	Logged by MAW
			Scale 20cm = 5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
90.0						No Core	
91.0							
92.0							
93.0							
94.0							
94.0	(39) 94.0 - 95.0					Flint Rubble	
95.0						(borehole uncored from 95 - 101.0m; total Depth of borehole = 101.0m)	

Comments

FIGURE 4: Lithological log of the Grimsby Wood
(cored) Borehole [SU 514 719]







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Project **LOCAR**

Locality Name **Grimby Wood**

Borehole No. **PL14B**

Sheet **3 of 6**

Start date

Client

Borehole diameter

NGR/lat & long
SU 514 719
Ground level

End date

Drilling method

Casing details

Logged by
MAW

Scale
40 mm = 1m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
40.0						brecciated Chalk & flint rubble	
41.0							
42.0							
						Bourguericrinus (calyx) →	
						large nodular flint →	
43.0							
43.30							
44.0						flint rubble weak, smooth-textured CHALK. Veinier, or 'marbled' texture prevalent at some horizons. Fewer marly chally burrow infills & less fossiliferous.	
						more fossiliferous with echinoid test & spine fragments in spongioidous Chalk.	
45.0							

Comments

* Sample attributed to depth 43.11-43.25 on 'hydro log'



Borehole No. PL14B

Sheet 4 of 6

Borehole diameter

NGR/at & long
SU 514 719
Ground level

Casing details

Logged by
MAW

Scale
40 mm =
1 m

Comments * depth of sample on 'hydro log' appears to be within interval of core loss.



Borehole No.	PL14B
--------------	-------

Sheet	5	4	6
-------	---	---	---

Client

Borehole diameter

NGR/lat & long
SY 514 719
Ground level

End date

Logged by MAW	Scale 40 mm = 1 m
------------------	-------------------------

Drilling method

Casing details

Logged by

Scale
40 mm =
1 m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
50.0							
51.0							
52.0							
53.0	52:30 - 55:30						
54.0						flint rubble	
55.0						Bourgueticrinus (columnal) → 12mm thick marl plates thin wispy marl Moderately weak, mostly smooth-textured chalk with many small, burrow mounds. Some weakly developed thin plates marls. Rather sparsely fossiliferous cyster → interval of thin wispy marls	



Borehole No. PL14R

Sheet 6 of 6

Borehole diameter

NGR/lat & long
SU 514 719
Ground level

Casing details

Logged by
MAW

Scale
40 mm =
1 cm

Drilling method

Comments

FIGURE 5: Lithological log of the Trumpletts Farm
(cored) Borehole [SU 513 751]



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Project **LOCAR**
Locality Name
Trumplers Farm

Borehole No. **PL10**
Sheet **1 of 20**

Start date
End date

Client

Borehole diameter

NGR/lat & long
Ground level **SU513 751**

Drilling method

Casing details

Logged by
M. Woods

Scale
20cm = 5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
0.0						No Core (0.0-3.0)	
1.0							
2.0							
3.0							
3.0	① 3.0 - 3.70					Moderately weak, smooth textured, white CHALK, rubble & broken flint fragments. Patchily iron-stained, spongy, porous chalk	
4.0	* ② 3.70 - 5.40						
						Moderately weak, smooth-textured, rusty yellow-orange stained (spongy) CHALK, fragments of nodular flints. Core very fragmented.	
5.0							

Seabed
5.40

Comments

Assumptions about core loss follow those
made on the hydrogeological log



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Project LOCAR

Borehole No. PL10

Locality Name Trumplers Farm

Sheet Z of 20

Start date

Client

Borehole diameter

NGR/lat & long
Ground level SU 513 751

End date

Drilling method

Casing details

Logged by
MAW

Scale
20cm =
5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
5.0							
	↓						~
	③						
5.40							
6.0	8.40						
						Moderately weak, patchily non-sprained (spongiiferous), smooth-textured, flinty CHALK. Major cored flint at 7.85-7.92. Poorly fossiliferous apart from occasional asteroid plates	~
7.0							
						Orange-yellow stained chalk above thin clay (below)	
						7.40: thin horizon of reddish-brown clay	~
8.0							
	↓						
	④						
8.40							
9.0	10.85						
						Moderately weak smooth-textured chalk with scattered small nodular flints.	~
						(fragments of core remain in sampled interval)	~
10.0						Patchily spongiiferous chalk	~

Comments



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Project LOCAR
Locality Name Trumplers Farm

Borehole No. PL10
Sheet 3 of 20

Start date
End date

Client

Borehole diameter

NGR/lat & long
Ground level SUS13 751

Drilling method

Casing details

Logged by
MAW

Scale
20cm =
5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
10.0						10.27: very thin wispy marl	
11.0	⑤ 10.85 — 13.50				<u>Chalk</u>		
12.0						Moderately weak, smooth-textured, white chalk. Scattered small nodular flints & patchily orange- stained (Spongiiferous) Chalk.	
13.0						13.18: ?Platyceramus shell bed	
14.0	⑥ 13.50 — 15.70				<u>Se</u>		
15.0						Moderately weak to moderately strong, white chalk, with common ?Platyceramus shell fragments & nodular flints. Patchily Spongiiferous at 14.29 - 14.50.	

Comments



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Project **LOCAR**

Borehole No. **PL10**

Locality Name **Trumplers Farm**

Sheet **4 of 20**

Start date

Client

Borehole diameter

NGR/lat & long
Ground level **SU 513 751**

End date

Drilling method

Casing details

Logged by
MAW

Scale
20 cm = 5 m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
15.0						lens of orange-red clay	
16.0	7 15.70 — 17.70						
						Moderately weak, smooth-textured white chalk, with patchily orange-stained (spongy, feathery) chalk; scattered small nodular flints; few fossils	
17.0						17.23: horizon of reddish-brown clay	
18.0	8 17.70 — 21.0						
						Moderately weak, smooth-textured chalk with patchily developed orange staining (spongy, feathery chalk)	
19.0							
20.0							

Comments



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Project **LOCAR**
Locality Name **Trumplers Farm**

Borehole No. **PL10**
Sheet **5 of 20**

Start date
End date
Client
Borehole diameter
NGR/lat & long
Ground level

Drilling method
Casing details
Logged by
Scale

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
20.0						Moderately weak, smooth-textured CHALK.	
						Core remains in sampled interval	
						Core remains in sampled interval	
21.0	X				Chalk	20.83: ? <u>Platyceramus</u> shell fragments	
22.0	9 21.0 - 24.20				Chalk		
23.0					Chalk	Moderately weak, smooth-textured CHALK. Parchily spongy & occasional <u>Platyceramus</u> shell fragments; small nodular flints.	
24.0	X				Chalk		
25.0	10 24.20 - 27.70				Chalk	massive cored flint containing small fragments of <u>Platyceramus</u> shell	

Comments



Borehole No.	PL10
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Sheet 6 of 20

Borehole diameter



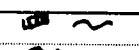








NGR/lat & long
Ground level

Casing details

Logged by
MAW

Scale
20 cm =
5 m

Drilling method

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
25.0							
26.0							
27.0						<p>patchily iron-stained spongy ferrous chalk very thin mud wisp</p> <p>Moderately weak, smooth textured CHALK with large nodular flint fragment, common <u>Platyceramus</u> shell fragments & thin gray plexus warts.</p> <p>complicated patchy iron-staining & bioturbation</p> <p>10mm plexus wart</p> <p>15mm plexus wart</p> <p>moderately thick (!) <u>Platyceramus</u> shell</p>	     
28.0							
29.0						<p>large nodular flint fragments up to 8cm diameter</p> <p>Moderately weak, smooth-textured chalk; local occurrence of <u>Platyceramus</u>. Moderately thick <u>Platyceramus</u> shell</p> <p>12mm plexus wart</p> <p>series of very thin mud wisps spread through 60mm interval</p>	    
30.0							

Comments



Borehole No.	PL10
--------------	------

Sheet 7020

NGR/lat & long
Ground level

Logged by
MAW

$$20 \text{ cm} = 5 \text{ m}$$

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
30.0						patchily spongiiferous & conspicuously bioturbated	
31.0	*					Flint rubble (might have fallen down borehole from higher levels)	
	(12)					Moderately weak, smooth-textured CHALK with Plexus warts. 20mm plexus marl → 150mm interval of thin plexus warts, locally spongiiferous	
32.0	30.70 - 32.70					110mm thick, strong plexus marl	
	*					Platyceramus shell & conspicuous bioturbation	
33.0						Moderately weak, smooth-textured CHALK. No flints, but very thin plexus warts present	
34.0	(13) 32.70 - 34.70					marl wisp up to 10mm conspicuous bioturbation →	
	*					c.5mm plexus marl on fracture →	
						25mm thick plexus marl →	
35.0	(14) 34.70 - 36.70					? Platyceramus →	

Comments



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Project **LOCAR**
Locality Name **Trumplers Farm**

Borehole No. **PL10**
Sheet **8 of 20**

Start date
End date
Client
Borehole diameter
NGR/lat & long
Ground level **S0513 751**

Drilling method
Casing details
Logged by **MAW**
Scale **20cm = 5m**

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
35.0						thin marl wisp → thin marl wisps in 30cm interval 4mm marl wisp →	
36.0						Moderately weak to moderately strong CHALK. Mostly smooth-textured, but moderately strong Chalk is rougher textured	
						presumed <i>Platyceramus</i> shell fragments →	
37.0	15					conspicuous bioturbation	
	36.70 38.80		see note			? nodular, spongy, chalk with marl wisp	
						20cm closed marl seam →	
38.0						Moderately weak to moderately strong CHALK.	
						<i>Platyceramus</i> → large nodular flint occupying full core diameter; patchily hard chalk below.	
39.0						<i>Platyceramus</i> shell frags. → interval of thin wispy marls Flint rubble; some or all may not be in situ. Moderately strong, locally nodular CHALK. Marl burrow visible but no marl seams. Some <i>Platyceramus</i> fragments.	
	16 38.80 40.80					39.40-39.60: patchily hard Chalk conspicuous bioturbation ? <i>Platyceramus</i> → very conspicuous bioturbation picked out by darker marly Chalk; No marl seams.	
40.0							

Comments Note: Sample given on 'hydro log' as 37.34-37.60 must be from 37.10-37.20 for depths of other marker beds to be correct on 'hydro log'



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Project

LOCAR

Borehole No.

PL10

Locality Name

Trumplett's Farm

Sheet

9 of 20

Start date

Client

Borehole diameter

NGR/lat & long

End date

SUS13 751

Ground level

Drilling method

Casing details

Logged by

MAW

Scale

20cm = 5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
40.0						? <u>Platyceramus</u> → 20mm thick interval of thin marl wisps	
41.0	*				K	weak marly grotte nodular texture	
42.0	(17) 40.86 — 42.90				U	15mm thick plexus marl → Moderately weak to moderately strong CHALK. weak marly grotte nodular texture	
					o	weak marly grotte nodular texture →	
					o	weak marly grotte nodular texture →	
43.0	*				o		
					o	? nodular chalk →	
	(18) 42.90 — 44.90				o	Moderately strong to moderately weak CHALK. sparsely fossiliferous. weakly developed marly grotte nodular texture flattened nodular flint occupying full core diameter maceramid shell fragment (not <u>Platyceramus</u>) →	
44.0						10mm medium grey marl seam → ? weak marly grotte nodular chalk → marly chalk band; could be large burrow fill (very diffuse)	
45.0	*						

Comments

'Hydro log' records sample at 43.46-43.71, but cannot be correct given depths attributed to other marker-beds; sample assigned to 43.30-43.60



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Project **LOCAR**
Locality Name **Trumplett's Farm**

Borehole No. **PL10**
Sheet **10 of 20**

Start date
End date
Client
Borehole diameter
NGR/lat & long
Ground level **SUS13 751**

Drilling method
Casing details
Logged by **MAW**
Scale **20cm = 5m**

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
45.0						(Some core remains from sampled interval)	
46.0	①9 44.90 - 46.90					weakly nodular chalk → 130mm interval of thin marl wisps Bands of moderately weak & moderately strong chalk. Thin plexus marl & nodular flints. Poorly fossiliferous	
						8mm thick plexus marl patchily hard & conspicuous bioturbation weakly nodular 15mm thick plexus marl → conspicuous fracture →	
47.0	* X					Moderately weak to moderately strong, locally rough textured, weakly nodular chalk. Poorly fossiliferous with single thick marl seam & nodular flints. Locally conspicuous bioturbation.	
48.0	②0 46.90 - 48.90					conspicuous iron-staining →	
						20mm thick closed marl seam underlain by 30mm of thin marl wisps conspicuous bioturbation	
49.0	* X					weakly nodular chalk Moderately weak to locally moderately strong, weakly nodular marly CHALK Chalk. Poorly fossiliferous.	
50.0	②1 48.90 - 50.90					Sheet flint →	

Comments



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Project **LOCAR**

Borehole No. **PL10**

Locality Name **Trumplett's Farm**

Sheet **11 of 20**

Start date

Client

Borehole diameter

NGR/lat & long
Ground level **SUS13 751**

End date

Drilling method


Casing details

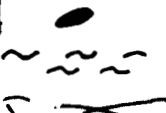
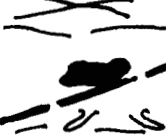
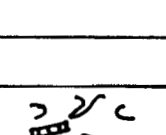
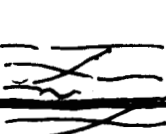

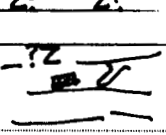

Logged by
MAW

Scale
20cm = 5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
50.0						Conspicuous bioturbation	
51.0	*					large nodular flint in top of core run probably not in-situ band of moderately weak smooth-textured chalk	
	(22)					Moderately weak to moderately strong CHALK. Alternating bands of marly, conspicuously bioturbated chalk, and less marly chalk.	
52.0	50.90 - 52.90					No fossils seen in this core run	
53.0	*					thin marl wise →	
	(23)					<u>Cremnoceramus</u> (1) →	
						up to 20mm plexus marl locally rough-textured chalk	
						up to 15mm plexus marl	
54.0	52.90 - 55.0					Moderately weak to moderately strong CHALK. Alternating bands of marly chalk & less marly chalk	
						Common & conspicuous orange-stained spongerous chalk	
55.0	↓					thin wispy marls conspicuous orange-stained spongerous chalk	

Comments

 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL		Project LOCAR Locality Name Trumplers Farm		Borehole No. PL10 Sheet 12 of 20	
Start date End date		Client		Borehole diameter NGR/lat & long Ground level SU 513 751	
Drilling method				Casing details	
				Logged by MAW	Scale 20cm = 5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
55.0	↑					Moderately weak to moderately strong CHALK. Alternating bands of marly chalk and less marly chalk. Conspicuous orange-stained spongyferous chalk.	
56.0	(24) 55.0 - 57.0				1k	nodular flint adjacent to discordant sheet flint marly bioturbated chalk	
						weakly marly bioturbated chalk? <u>Cremnocerasmus</u>	
57.0	* (25) 57.0 - 59.0				0	30mm thick plexus marl → 15mm thick plexus marl Moderately weak to moderately strong, locally weakly nodular marly CHALK. Conspicuous bioturbation throughout	
58.0					0		
59.0	* (26) 59.0 - 60.0				0	Moderately weak to moderately strong CHALK. Marly & conspicuously bioturbated in upper & lower part of run, less marly in middle. Thick inoceramid hinge fragment	
60.0						25mm thick plexus marl with thin wispy marls above & below	

Comments NB: Core logged as 55-56m on hydro log should be attributed to 56-57m; Core logged as 56-57m on hydro log should be attributed to 55-56m
--



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NATURAL ENVIRONMENT RESEARCH COUNCIL

Project **LOCAR**
Locality Name **Trumpletts Farm**

Borehole No. **PL10**
Sheet **13 of 20**

Start date
End date
Client
Borehole diameter
NGR/lat & long
Ground level **SU513 751**

Drilling method
Casing details
Logged by **MAW**
Scale **20 cm = 5 m**

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
60.0	↑					Alternating bands of <u>Micraster</u> sp. → Strong marly chalk & less marly chalk Locally strong chalk	
61.0	(27) 60.0 62.0				✓	Bioturbation conspicuous throughout picked out by darker marly chalk burrow infills. 15mm thick plegas with thin wispy marls below (some thick)	
62.0	*				✓	? <u>Cremnoceramus</u> @ 61.70 → marl wisp → sponge →	
					✓	25mm thick plegas marl	
63.0	(28) 62.0 64.0				✓	Moderately strong to moderately weak CHALK. Alternation of marly chalk & less marly chalk. marl wisp →	
64.0	*				✓		
65.0	(29) 64.0 66.0				✓	Moderately strong to moderately weak CHALK. Alternation of marly & conspicuously bioturbated intervals with less marly & less conspicuously bioturbated intervals	

Comments

Project

LOCAR

Borehole No.

PL10

Locality Name

Trumpletts Farm

Sheet

14 of 20

Start date

Client

Borehole diameter

NGR/lat & long

& long
SU513 751
level

End date

Drilling method

Casing details

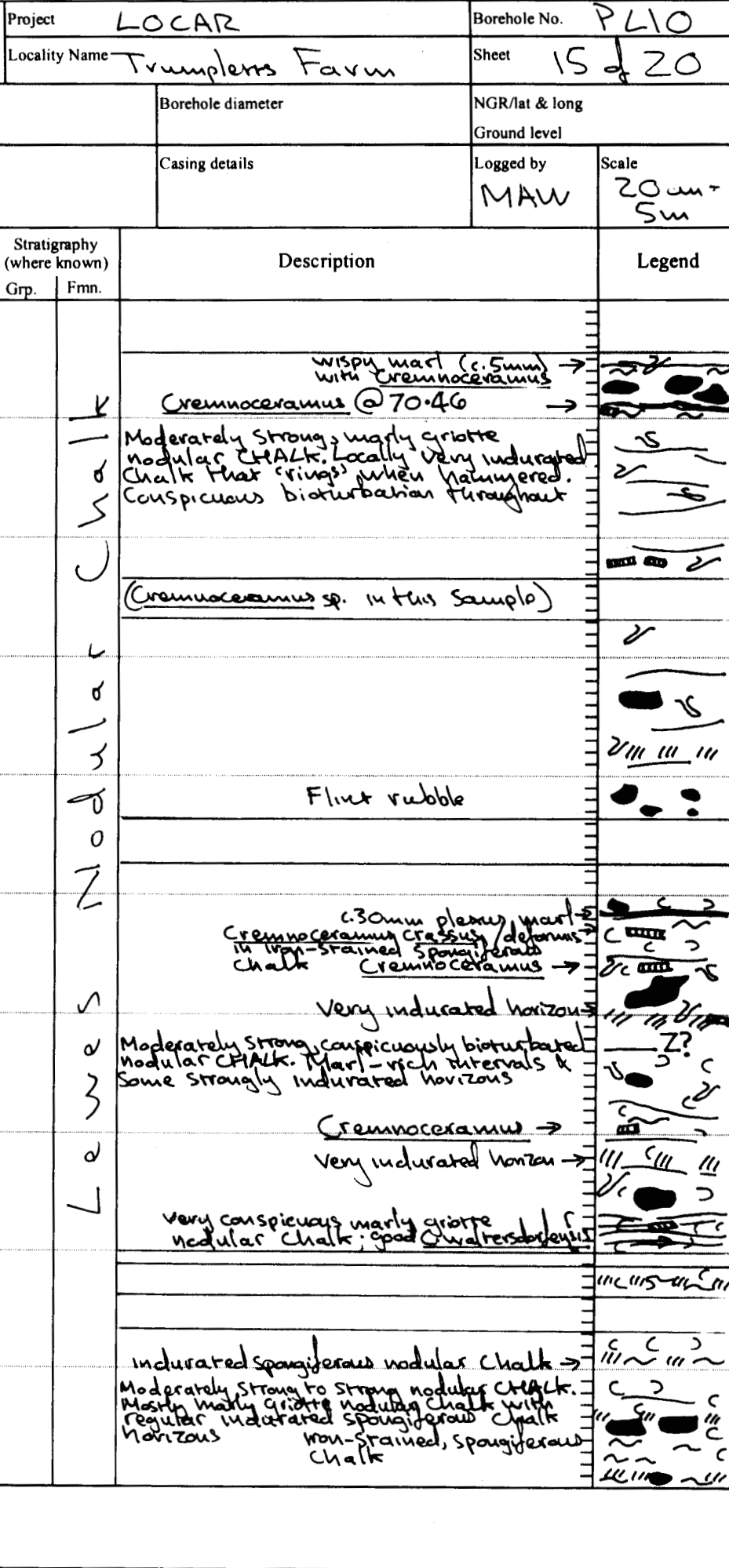
Logged by

MAW

Scale

$$20\text{cm} = 5\text{m}$$

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
65.0							
					?	75mm plexus marl with thin marl wssps below (marl cut by slickensided surface)	
66.0						60mm plexus marl Flint rubble →	
67.0	30 66.0 68.0					Moderately strong nodular CHALK. Alternating marl-rich & conspicuously bioturbated intervals with less marly intervals	
						? <i>C. waltersdorfensis</i> →	
						? <i>Cremnoceramus</i> →	
68.0							
						distal part of ? <i>Cremnoceramus</i> →	
69.0	31 68.0 70.0					<i>Cremnoceramus</i> →	
70.0						<i>Cremnoceramus waltersdorfensis</i> ? →	





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NATURAL ENVIRONMENT RESEARCH COUNCIL

Project

LOCAR

Borehole No.

PL10

Locality Name

Trumplets Farm

Sheet

16 of 20

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

MAW

Scale

20 cm =
5 m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
75.0						flint rubble → buff-coloured phosphatic nodule <i>Echinocorys</i> aff. <i>gavesi</i> →	
76.0	*					possible <i>C. waltersdorfensis</i> (several specimens) → very indurated → ? <i>C. waltersdorfensis</i> → 120 mm thick marly chalk interval → ? <i>C. waltersdorfensis</i> <i>acme</i> → <i>Cremnoceras</i> →	
77.0	(35) 76.0 — 78.0					? glauconitic & phosphatic clasts <i>Microaster normanniae</i> ? @ 76.51; <i>Cremnoceras</i> @ 76.66 <i>S. spinosus</i> 76.84 <i>Cremnoceras</i> @ 76.94 50 mm thick plexus marl →	
78.0	*					Moderately strong to strong nodular CHALK. Very indurated chalk with glauconitic & phosphatic clasts between 76 & 77 m ? plexus marl (30-35 cm) → Very indurated, spongy, porous chalk below plexus marl Flint rubble Moderately strong to strong nodular CHALK Locally very strong, with common phosphatic & glauconitised clasts ? <i>Zoophycos</i> in marl → pale brown phosphatic clast →	
79.0	(36) 78.0 — 80.0					pale phosphatic & glauconitised clasts very marly nodular chalk → ? incipient hardground → 25 mm thick marl →	
80.0	↓						

Comments



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Project

LOCAR

Borehole No.

PL10

Locality Name

Trumplers Farm

Sheet

17 of 20

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by
MAW

Scale

20 cm =
5 m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
80.0	↑					Strong to very strong nodular CHALK with common scattered sand grade glaucousite grains. Intensely indurated in lower part of run with four conspicuous hardgrounds	
81.0	(37)					Irregular hardground overlain by pebble bed of glauconitised clasts Strongly glauconitised, rather planar hardground Strongly glauconitised, convolute hardground Strongly glauconitised, convolute hardground	
82.0	*					Chalk becoming extremely strong (Chalkstone) ? T. late (81.70) → becoming slightly marly	
83.0	(38)					marly griotte nodular chalk Labyrinthidoma 110mm thick dark plastic textured marl with common Labyrinthidoma Moderately strong to strong marly griotte nodular chalk.	
84.0	*					Inoceramus curvieri @ 83.35 → iron-stained, spongy nodular chalk 40mm thick plexus marl with included chalk clasts	
85.0	(39)					25mm plexus marl Moderately strong to strong nodular CHALK with common marl seams. downward change to weakly nodular chalk	

Comments

* No evidence of core loss at top of run ∴ Sample depth adjusted
on this log compared to 'hydro log'.



LOCAR

Borehole No.	PL10
--------------	------

Trumpeters Farm

Sheet 18 of 20

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

Scale

MAW

$$20 \text{ cm} = 5 \text{ m}$$

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
85.0							
86.0	*					110mm thick plexus marl very indurated nodular chalk <i>Inoceramus curviro-</i>	
86.0						170mm thick marl seam - very dark grey in centre	
88.0	(40)					patchily iron-stained spongy marl chalk interval	
87.0						Moderately strong to strong marly nodular chalk	
						40mm plexus marl	
88.0	*					Chalk becoming less nodular, but still patchily hard. pale grey marly chalk	
						Moderately strong to strong marly nodular chalk.	
						40mm plexus marl pyrite nodules	
89.0	(41)					70mm marl seam iron-stained spongy chalk	
88.0							
90.0						Becoming more weakly nodular chalk below 89.50	
						50mm marl plexus iron-stained spongy chalk	
90.0							
Comments * on 'hydro log' this sample labelled as 88.13-88.34.							



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NATURAL ENVIRONMENT RESEARCH COUNCIL

Project **LOCAR**
Locality Name **Trumplett's Farm**

Borehole No. **PL10**
Sheet **19 of 20**

Start date	Client	Borehole diameter	NGR/lat & long
End date			Ground level
Drilling method		Casing details	Logged by MAW
			Scale 20 cm = 5 m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
90.0	↑ (42)				L o s e s	nodular flint fragments 70mm plexus upper iron-stained spongy Chalk 75mm plexus marl	
90.0 — 92.0						iron-stained spongy Chalk	
91.0						(still very indurated chalk in sample)	
					P i t	Moderately strong, weakly nodular marly Chalk. Much less nodular than previous core run (88-90), but still much stronger than typical Chalk from this level below the Chalk Rock	
92.0	* (43)					50mm plexus marl	
						Moderately strong Chalk with regularly developed marl and horizons of spongy Chalk. Generally non- nodular, although 120mm thick plexus more indurated than typical upper New Pit Chalk	
93.0	92.0 — 94.0				P i t	(still indurated chalk in sample)	
						80mm thick plexus marl	
						90mm thick plexus marl Stickensided fracture cuts core → patchily spongy Chalk	
94.0	* (44)				P i t	10mm plexus marl →	
	94.0 — 96.0					Moderately strong Chalk with regular marls. Burrow mottled throughout Mar nodular but more indurated than typical New Pit Chalk wispy marls	

Comments



LOCAR

P110

Trumpletts Farm

$$20 \div 20$$

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

Scale

MAW

$$Z_{0\text{cm}} = 5\text{m}$$

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
95.0							
						(much less indurated)	
96.0	* 96.0				Chalk	50mm thick plexus marl → Moderately strong, burrow spotted, marly CHALK. Local iron stained spongy horizons. Generally less indurated & smoother textured than previous intervals. <u>Monocranus curiei?</u> →	
97.0	(45)					(much less indurated)	
					Pit	75mm plexus marl	
98.0	* (46)					Moderately weak to moderately strong, marly CHALK. Mostly typical smooth-textured New Pit Fm. (the first time the typical lithology can be unequivocally identified) <u>Monocranus curiei</u> →	
99.0	99.0 100.0				Z	iron-stained spongy Chalk Biopurbation becomes more conspicuous below 98.76 75mm plexus marl	
100.0	↓					indurated horizon →	

Comments

END OF CORE

FIGURE 6: Lithological log of the Frilsham Meadow
(cored) Borehole [SU 538 739]



Locality Name Frilsham Meadow

Sheet 1 of 13

NGR/lat & long
SU 538 739
Ground level

Ground level

Logged by MA Woods	Scale 20 cm = 5 m
-----------------------	----------------------

Scale
20 cm = 5 m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
0						No Core (0.0 - 8.50)	
1							
2							
3							
4							
5							

Comments



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Project **LOCAR**
Locality Name **Frilsham Meadow**

Borehole No. **PL11E**
Sheet **2 of 13**

Start date	Client	Borehole diameter	NGR/lat & long
End date			Ground level
Drilling method		Casing details	Logged by MA Woods Scale 20 cm = 5 m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
5						No Core	
6							
7							
8							
9	1 8.5 - 11.50			White Chalk	Seaford Chalk		
10							

Comments

Assumptions about core loss follow those made on the fracture log by J P Bloomfield et. al.



Project	LOCAR
Locality Name	Frilsham Meadow

Borehole No.	PL 22E
Sheet	3 of 13

NGR/lat & long

Ground level

Logged by

MA Woods	20 c mi. 5 m
----------	-----------------

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
10							
11	1						
12	2 11.50 14.50					Moderately weak, smooth textured, white CHALK. Two seams of nodular flints. Core very fragmentary.	
13							
14							
15	3 14.5- 15.5					Moderately weak, smooth, white CHALK.	
Comments Cuttings: 12.55-13.55: <u>Platyceramus</u> shell fragments in moderately strong CHALK. Cuttings: 13.55-14.55: <u>Platyceramus</u> " " " " weak " Cuttings: 14.55-15.55: <u>Platyceramus</u> shell fragments							



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Project **LOCAR**
Locality Name **Frilsham Meadow**

Borehole No. **PL11E**
Sheet **4 of 13**

Start date	Client	Borehole diameter	NGR/lat & long
End date			Ground level
Drilling method		Casing details	Logged by MA Woods Scale 20 cm: 5 m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
15	3						
	4						
16	15.50					Moderately weak to weak, smooth-textured, white CHALK, with two seams of broken nodular flints. Upper seam includes fragment > 14 cm <i>Platyceramus</i> & echinoid test fragment in base of core interval.	
	16.60						
	5						
17	16.60					Moderately weak, smooth, white CHALK, with horizons of broken-up flint nodules. Patchy iron-staining at 17.10 represents sponge remains	
	18.10						
						<i>Platyceramus</i> shell bed	
18	6						
	18.10					Moderately weak, smooth-textured CHALK, with small nodular flint fragments and thin marls. 50mm thick medium grey marl at 18.30, and 10mm plaster marl at 18.80. <i>Platyceramus</i> just below flint nodules at 18.40m. Fragments of large nodular flint preserving inoceramid shell fragments seen at 19.80.	
19	20.90						
						Small <i>Platyceramus</i> shell fragment above small nodular flint. 10mm thick marl seam closely underlain by 15mm thick weak plaster marl. CHALK consists of compacted broken fragments from 19.40 - 19.70. Small broken <i>Platyceramus</i> shell fragments below marl pair. Large broken flint in sample from core-catcher	
20							

Comments **Cuttings: 17.6-18.10: moderately thick shelled *Platyceramus*.**



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Project

LOCAR

Borehole No.

PL11E

Locality Name

Frilsham Meadow

Sheet

5 of 13

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

MAWoods

Scale

20 cm =
5 m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
20							
	6						
21	*						
	7						
	20.9						
	22.30						
22	*						
	8						
	22.30						
23	*						
	23.85						
24	*						
	9						
	23.85						
	26.65						
25							

Comments



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NATURAL ENVIRONMENT RESEARCH COUNCIL

Project

LOCAR

Locality Name

Frilsham Meadow

Borehole No.

PL11E

Sheet

6 of 13

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

MA Woods

Scale

20 cm = 5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
25	9					Moderately weak, smooth-textured white CHALK. 60mm thick pale grey marl flaser at 25.10 to 25.16, and 10mm thick flaser at 25.36. Thin marl wisps occur between these flasers and down to another 10-15mm flaser marl at 25.69	
						Slighly undulating surface of indeterminate orientation	
26						Large, thick shelled <i>Volviceras</i> involutus at 26.95. <i>Spongerius</i> , iron-stained chalk at 26.92m. Chalk more conspicuously bioturbated down to 26.87.	
						Moderately strong, smooth-textured white CHALK. 60mm thick flaser marl with 10mm thick marl-rich interval at 115 base.	
						10-15mm thick flaser marl at 26.62	
						* See note below *	
27	10					Moderately strong, smooth-textured, white CHALK. Major marl seam at 27.18 - 27.32, comprising three marl-rich intervals linked by thin flaser marls. Patchily iron-stained (<i>Spongerius</i>) at base of marl interval, and conspicuously bioturbated just below marl.	
	26.65 - 27.95						
28	11					Moderately strong, smooth-textured, white CHALK. Small nodular and finger like <i>Platyceras</i> shell fragments.	
	27.95 - 28.95						
						Moderately strong, smooth-textured, white CHALK. Common <i>Myoceras</i> shell. Chalk is weakly <i>Spongerius</i> .	
29	12					Moderately strong, rather gritty & bioclastic chalk with patchy iron-staining (<i>Sponges</i>). Two thin flaser marls at 29.68 (c. up to 8mm) and 29.77 (up to 5mm thick)	
	28.95 - 31.95						
30							

Comments

*: This interval of core is greater (c. 0.2m) than indicated by bottom of Run 9 and top of Sampled interval below. It contains two flaser marls and is moderately strong, smooth-textured white CHALK. This interval has a *Platyceras* shell bed at 115 base.



Locality Name Frilsham Meadow

Sheet 7 of 13

NGR/lat & long








Ground level

Scale

$$20 \text{ cm} = 5 \text{ m}$$

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
30						Moderately strong, rather grainy, white CHALK. Patchily Spongiferous and bioturbate with <i>Platyceramus</i> shell fragments.	
31	12					Moderately strong, grainy textured white CHALK. Bioturbated and patchily iron-stained (Spongiferous). <i>Platyceramus</i> shell bed at 30.60m. 4mm flaser marl at 30.70m. Interval of common thin flaser marls at 30.90-31.06. <i>Platyceramus</i> fragment at 30.90	
32	*					Moderately strong, grainy textured white CHALK. Bioturbated and patchily iron-stained (Spongiferous). Thin, marly chalk horizon at 31.60. Broken fragments of nodular Hirt (>10cm) at 31.35.	
33	13 31.95 - 34.70					Moderately strong, relatively smooth textured white CHALK. Patchily iron-stained (Spongiferous) and bioturbated. <i>Platyceramus</i> shell fragment at 32.63 c. 17mm flaser marl above 10mm flaser marl	
34						up to 50mm thick flaser marl locally forming good seam 70mm thick broken-up fragments of nodular Hirt underlain by marl wisps	
35	*					large broken-up Hirt fragments possible <i>Volvicerasmus</i> shell fragment	
36	14					broken-up fragment of dark gray plexus marl Moderately strong to moderately weak smooth-textured white CHALK with bioturbation picked out by pale grey marly chalk.	

Comments

 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL		Project LOCAR		Borehole No. PL11E			
		Locality Name Frilsham Meadow		Sheet 8 of 13			
Start date		Client		Borehole diameter			
End date				NGR/lat & long			
Drilling method				Casing details			
				Logged by MA Wood			
				Scale 20cm = 5m			
Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
35	14						
	34.70 - 37.70					Moderately weak, smooth-textured, white CHALK. Conspicuous bioturbation picked out by pale grey marly flint. Run 14 is patchily iron-stained (Spongiferus) throughout. Iron-rich nodule at 35.60; might be decayed flint.	
36							
						Platyceramus shell bed above big flint fragment. Flint underlain by orange-stained, spongiferous chalk.	
37						Thin marl wisp above nodular flint fragments. ? Volviceramus involutus at 37.32m Thin marl wisps over 50mm interval	
38	15					Moderately weak, smooth-textured, white CHALK. Bioturbation picked out by pale-medium grey marly chalk. Large fragments of flint at 37.75 (with inoceramid shell fragments) and 38.45.	
39	16					(Massive cored flint c. 10cm thick; might be semi-tabular)	
40	42.10					Moderately weak, smooth-textured, white CHALK. Inconspicuous bioturbation. Some large nodular flint fragments and plexus marl at 40.10m.	
Comments							



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NATURAL ENVIRONMENT RESEARCH COUNCIL

Project

LOCAR

Borehole No.

PL11E

Locality Name

Frilsham Meadow

Sheet

9 of 13

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

MA Woods

Scale

20cm = 5m

Depth (m) below Ground level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
40	16					10-15mm thick plexus marl Small, incipiently developed nodular flints with patchy orange iron-staining in chalk (sponge remains)	
41						0.4mm thick Sheet flint with hollow interior	
						Interval of thin wispy marls forming flaser marl intervals that are up to 40mm thick. Patchily iron-stained spongy chalk.	
42	*					c. 45mm thick flaser marl interval: mixed flint and marl ground up by drilling. Abundance of medium-grey marl suggests could be thick section.	
	17					Moderately weak, smooth-textured white CHALK. 50mm thick flaser marl at 42.49.	
	42.10					wispy marl up to 5mm thick interval of nodular flints Flint fragments up to 90mm thick	
43	44.55					patchily iron stained spongy chalk	
						Interval of small nodular and spiky flints. * See note below iron-stained, spongy chalk Sheet flint up to 8mm thick	
44						nodular flint fragment and iron- stained spongy chalk. Moderately weak, smooth-textured white CHALK with inconspicuous bioturbation	
	*					Slickensided fault surface Superb sponge preserved as iron-stained impression	
45	18 & 19						

Comments

* This interval is below sample at c. 43.80m on log by
JPB, but above the sample marker in the core.



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Project **LOCAR**
Locality Name **Frilsham Meadow**

Borehole No. **PL11E**
Sheet **10 of 13**

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by
MA Woods

Scale
20cm = 5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
45	18 & 19 44.55 — 46.30					Moderately weak CHALK. Slightly less smooth textured than above. Occasional indeterminate micromerid shell fragments up to 10mm thick sheet flint up to 15mm thick sheet flint	
46	* 21 & 22 (no run 20 recorded)					Moderately hard, rougher-textured chalk than above. Possibly weakly nodular locally (not cored)	
47						Moderately strong, slightly rough-textured CHALK with patchy iron-staining	
48	46.30 — 50.75					(not cored)	
49						fractures irregularly and appears incipiently nodular. Thin wispy marks at 48.90-49.0 large cored nodular flint c. 100mm thick steeply dipping, strongly slickensided fault plane 30mm thick plexus marl at 49.64 interval of thin plexus marls and small nodular flints. slickensided fault surface at 49.86 -49.96.	
50							

Comments



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Project **LOCAR**

Borehole No. **PL11E**

Locality Name **Fritsham Meadow**

Sheet **11 of 13**

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by
MA Woods

Scale
20cm = 5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
50	21 & 22					patchy iron-staining (spongiferous chalk)	
						flint nodules in 60mm thick flaser marl interval.	
51	23 50.75 —					fragments of nodular flint up to 70mm marl wise Small carious flint thin plexus marls in weakly nodular chalk	
	53.30					Moderately weak to moderately strong, greyish white, rough-textured CHALK. Locally weakly nodular	
52							
						Fragments of large nodular flints up to 110mm	
						Chalk with interconnected marl-stringers. Looks like gricote texture; bands of weakly nodular chalk	
53						iron-stained, spongiferous chalk	
	24 53.3- 55.3					Moderately weak, creamy-grey rough-textured CHALK. weakly nodular with thin discontinuous marl stringers running through core	
54						patchy iron-staining (spongiferous) chalk with thin wispy marl. weakly nodular.	
						Fragments of 15mm thick sheet flint recorded as strongly discordant in JPB log.	
55							

Comments



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Project

LOCAR

Borehole No.

PL11E

Locality Name

Frilsham Meadow

Sheet

12 of 13

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level

Drilling method

Casing details

Logged by

MA Woods

Scale

20cm =
5m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
55						Slickensided fault surface cutting flaser marl. Fragments of nodular and sheet flints	
56	25 55.30 - 58.30				Chalk	Moderately weak to moderately strong, creamy white, weakly nodular CHALK. Harder, nodular Chalk bands with softer chalk between. Core breaks with rough, uneven surface.	
57					White	50mm thick interval of thin wispy marls associated with moderately nodular chalk	
					ford		
						20mm thick flaser marl underlain by 120mm of weakly nodular griotte chalk	
						? Zoophycos in patchily iron-stained, sparganous chalk	
58						Fragments of nodular flint possible fragment of Crennoceras at 58.20m	
59	26 58.30 - 60.95				Leve's Nodular Chalk	Moderately weak to moderately strong, creamy-grey, rough-textured CHALK. Locally weakly nodular. Lots of small- medium scattered nodular flints.	
						Griotte nodular chalk at 59.10-59.60, becoming more regularly nodular chalk below.	
60						Crennoceras shell fragment.	

Comments



LOCAR

PL11E

Fri/sham Meadow

13 of 13

NGR/lat & long

Ground level

Logged by

Scale

MA Wood

Scale
20 cm = 5 m

Comments

FIGURE 7: Lithological log of the Broadfield Cottages
(cored) Borehole [SU 549 749]



**British
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NATURAL ENVIRONMENT RESEARCH COUNCIL

Project **LOCAR**

Borehole No. **PL13A**

Locality Name **Broadfield Cottages**

Sheet **1 of 19**

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level **SUS49 749**

Drilling method

Casing details

Logged by

M. Woods

Scale

40 mm = 1 m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
0						No Core Recovery (0.0 - 6.0 m)	
1							
2							
3							
4							
5							

Comments

Assumptions about core loss follow those made on the hydrogeological log.



British Geological Survey
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Project **LOCAR**
Locality Name **Broadfield Curraghs**

Borehole No. **PL13A**
Sheet **2 of 19**

Start date
End date

Client

Borehole diameter

NGR/lat & long
Ground level **SU 549 749**

Drilling method

Casing details

Logged by **M. Woods**

Scale **40mm = 1m**

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
5						No Core Recovery	
6	↑ 1 6-7.70			White Chalk	Seaford Chalk		
7						Weak, smooth-textured, white CHALK, with horizons of broken nodular flint fragments. Iron-stained spongiiferous chalk from 6.93 - 7.0, and more conspicuously from 7.20-7.36. <i>Bourguericrinus</i> at 7.22	
8	↓					Not Cored	
9	↑ 2 8.90-10.50					Not Cored	
10							

Comments



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Project **LOCAR**
Locality Name **Broadfield Corrages**

Borehole No. **PL13A**

Sheet **3 of 19**

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level **50549 749**

Drilling method

Casing details

Logged by

M. Woods

Scale

40mm = 1m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
10						Weak, smooth-textured white CHALK with fragments of large nodular flint up to 10cm across.	
11	* 3 10:50 - 13:40					Weak, smooth-textured white CHALK, but locally moderately strong at top of Run 3	
12						Small flints underlain by orange-stained spongyferous chalk.	
						Moderately weak to moderately strong, slightly yellow, orange CHALK. Patchily iron-stained & spongyferous at 12:30	
						(material from sampled interval has small nodular flint & iron-stained spongyferous chalk)	
13	* 4 13:40 - 14:00					Moderately strong, slightly yellowish-white CHALK. Patchily iron-stained (spongyferous) at 13:20. Locally rough-textured, especially where spongyferous.	
14						Common broken-up fragments of nodular flint. Rough-textured, moderately hard, patchily iron-stained spongyferous CHALK. Locally, chalk appears almost nodular.	
15	* 5					Moderately strong, rather rough-textured, yellowish-white spongyferous CHALK.	

Comments

Core loss at 11:4 - 12:10 follows log of CRJ, but suspect that there is continuity between core shown at 11:4 and 12:10.



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Project **LOCAR**

Locality Name **Broadfield Cottages**

Borehole No. **PL13A**

Sheet **4 of 19**

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level **SU549 749**

Drilling method

Casing details

Logged by

M. Woods

Scale


40mm = 1m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
15	14.6 — 16.60					Possible fragment of <u>Conulus</u> at 15.20 & spine of <u>Tylocidaris clavigera</u> broken-up fragments of nodular flint Moderately strong, rough-textured Spongiferous CHALK.	
16	*					Conspicuously bioturbated chalk with pale grey marly chalk infilling burrows. Chalk appears almost weakly nodular nodular flint fragment strongly spongiferous pale yellowish-white, moderately weak to moderately strong, rough-textured Spongiferous Chalk. Spine of <u>Tylocidaris clavigera</u> at 16.67 Patchily conspicuous bioturbation to 17.24	
17	6 16.60 — 19.60					Slightly smoother-textured Chalk than above. broken-up sheet flint conspicuously bioturbated pale yellowish white CHALK. broken-up fragments of nodular flint Patchily spongiferous Chalk throughout <u>T. clavigera</u> spine at 18.80m oblique iron-stained & polished fracture surface. 100mm thick interval of thin wispy gray marls very thin wavy associated with iron-stained spongiferous CHALK.	
18							
19							
20	7 19.6- 22.6						

Comments

Sample labelled as 17.44 - 17.71 on CRJ log is from interval in Core
Corresponding to 17.24 - 17.51



 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL		Project LOCAR Locality Name Broadfield Corrages		Borehole No. PL13A Sheet 6 of 19	
Start date End date		Client		Borehole diameter NGR/lat & long Ground level SU 549 749	
Drilling method				Casing details	
				Logged by M. Woods	
				Scale 40mm = 1m	

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
25						Chalk becoming smoother-textured than above	~ ~ ~
						Harder, spongy & coarser textured Chalk	~ ~ ~
26	10 25.6-26.2					Moderately strong, rough textured, weakly nodular, spongy CHALK.	c c c
						very thin, wispy marks	~ ~ ~
27	11 26.20-28.30						
28						Moderately strong, rough-textured, nodular spongy CHALK.	c c c
						Thin wispy marl, 3-4mm thick below broken up fragments of nodular flint.	~ ~ ~
29	12 28.30-31.3					Large nodular flints; individual flints up to 170mm. Flint is vertically elongated.	c c c
						Pale yellowish-white, moderately strong spongy CHALK. Locally nodular	c c c
						Terebratulid at 29.26, and common inoceramid shell fragments to 29.60	~ ~ ~
						locally strong, nodular, spongy CHALK.	/// c ///
30							

Comments



British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Project **LOCAR**
Locality Name **Broadfield Cottages**

Borehole No. **PL13A**
Sheet **7 of 19**

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level **SU549 749**

Drilling method

Casing details

Logged by

M. Woods

Scale

40mm = 1m

Depth (m) below Ground level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
30	12					Very thin marl wisps over 30mm interval Thin marl wisps at 30.17.	
						Platyceramus shell bed. Chalk is very poorly fossiliferous above this depth to top of borehole.	
						Moderately strong, creamy-white, patchily spangiferous CHALK. Not nodular, and smoother-textured than above.	
31	*					Moderately thick-shelled Platyceramus Thin marl wisps over 20mm interval	
						Moderately weak - Moderately strong, creamy-white, patchily spangiferous CHALK with nodular flint fragments and horizons of Platyceramus shell.	
32	31.3 - 32.9					Platyceramus at 32.10 is moderately thick-shelled.	
33	14					Fragments of large nodular flint with common inoceramid shell, including very thick fragment (78mm)	
						Common thick inoceramid shell	
						Plexus marl 435mm thick, comprising very thin wisps of pale grey marl. Associated iron-staining.	
34	32.9 - 35.1					Moderately weak, creamy-white, bioturbated chalk, with nodular flint marls and common thick-shelled Platyceramus.	
						20mm plexus marl	
						locally hard, nodular chalk horizon	
35							

Comments

Core appears to remain from Sampled interval at 31.05 - 31.30



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LOCAR

Borehole No.

PL13A

Locality Name

Broadfield Cottages

Sheet

8 of 19

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level 50549749

Drilling method

Casing details

Logged by

M. Woods

Scale

40mm = 1m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
35	↓					Interval of presumed core absence, although not shown as such on CRJ log.	
36	↑ 15 35.5 - 37.5						
37	* 16 37.5 - 39.0					c. 20mm thick sheer flint Moderately weak to moderately strong, relatively smooth-textured Creamy-white CHALK. Patchily Spongiferous and regularly shelly with mostly <u>Platyceramus</u> . Possible <u>Veliceramus</u> shell fragment at 36.93. Conspicuously bioturbated throughout with pale grey marl infilling burrows	
38						(nodular flint reappears in sampled interval)	
39	* 17 39 - 41.85					Moderately weak, smooth-textured, conspicuously bioturbated creamy- white CHALK. Patchily spongiferous with very thin marl wisps at 39.23 and <u>Platyceramus</u> shell-rich horizons.	
40							

Comments



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NATURAL ENVIRONMENT RESEARCH COUNCIL

Project

LOCAR

Borehole No.

PL13A

Locality Name

Broadfield Cottages

Sheet

9 of 19

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level SU 549 749

Drilling method

Casing details

Logged by

M. Woods

Scale

40mm = 1m

Depth (m) below Ground level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
40	17						
						sheet flint c. 5mm thick	
41						thick shelled <u>Platyceramus</u>	
42	*					weakly nodular, moderately strong creamy-white CHALK. <u>Echinocorys</u> test fragment in spongy chalk at 42.0.	
	18					<u>Platyceramus</u> at 42.50 weakly nodular chalk horizon	
	41.85						
	44.85						
43						Moderately weak, mostly smooth-textured CHALK. Patchily spongy, porous and with occasional horizons of nodular chalk.	
44						<u>Platyceramus</u> shell bed weakly nodular chalk horizon	
45	*						

Comments



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Project

LOCAR

Borehole No.

PL13A

Locality Name

Broadfield Cottages

Sheet

10 of 19

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level SU 549 749

Drilling method

Casing details

Logged by

M. Woods

Scale

40mm = 7m

Depth (m) below Ground level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
45	19					Slip-sensitized fault cuts core, with <u>Platyceramus</u> immediately below	
	44.85 46.50					Moderately weak, smooth-textured cream-white chalk. Patchily spongy, porous and bioturbated. Closely spaced plexus marls comprise very thin marl wisps.	
46	↓					Chalk locally moderately strong and spongy, porous <u>Platyceramus</u>	
						Not Cored	
47							
48							
49	↑ 21 49- 50.60						
50						<u>Platyceramus</u> shell fragment	

Comments

No run 20



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NATURAL ENVIRONMENT RESEARCH COUNCIL

Project **LOCAR**

Borehole No. **PL13A**

Locality Name **Broadfield Cottages**

Sheet **77 of 19**

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level **SU549 749**

Drilling method

Casing details

Logged by

M. Woods

Scale

40mm = 1m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
50						Moderately strong, smooth-textured creamy-white bioturbated CHALK. Common thin wispy marts and plexus marts. Occasional nodular flints. Parchily Spongerous.	
						Probable <i>Platyceramus</i> at 50.18	
51	22 50.6 52.7						
						Interval of very thin mart wisps with 20mm thick plexus mart at 51.85.	
52						Chalk becoming more indurated and weakly nodular at 51.9-52.0	
						Three closely spaced plexus marts recorded in Sample from 52.35-52.45	
53	23 52.7 55.7						
						40mm plexus mart	
54						Moderately strong, smooth-textured, creamy-grey CHALK. Common local plexus marts and occasional large flints (>100mm). <i>Platyceramus</i> shell fragments in plexus mart at 53.84.	
55						<i>Platyceramus</i> shell fragment	

Comments



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NATURAL ENVIRONMENT RESEARCH COUNCIL

Project **LOCAR**
Locality Name **Broadfield Corrages**

Borehole No. **PL13A**
Sheet **12 of 19**

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level **SU549 749**

Drilling method

Casing details

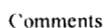
Logged by

Scale

M. Woods **40mm=1m**

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
55						<u>Platyceramus</u> shell fragment large fragments of broken-up nodular shut weakly nodular chalk at base of run	
56	24 55.7 58.5					broken-up fragments of nodular shut Very conspicuous bioturbation down to 56.45; this is griotte nodular chalk (!) thin plexus marls and patchily spongiiferous chalk; possible <u>Valviceramus</u> shell fragment in marls at 56.60. Softer non-nodular chalk below plexus marls at 56.55. <u>Platyceramus</u> at 56.77 & 56.93	
57						Moderately strong, locally nodular, creamy-white CHALK. <u>Platyceramus</u> at 57.20, 57.26. Weakly nodular chalk horizon, more indurated and coarser-textured than above	
58						possible thin-shelled <u>Platyceramus</u> chalk appears weakly nodular, like griotte nodular chalk.	
59	25 58.5- 59.10 26 59.10 62.70					Moderately strong, weakly nodular, creamy-gray CHALK. Patchily spongiiferous.	
60							

Comments





LOCAR

Borehole No. PL13A

Broadfield Cottage

Sheet 14 of 19

Client

Borehole diameter

NGR/lat & long

End date

Ground level 50549 749

Drilling method

Casing details

Logged by

Scale

M. Wood

$$40 \text{ mm} = 1 \text{ cm}$$

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
65							
	28						
	65.3- 66.0						
66						broken-up fragments of nodular flint Moderately strong bioturbated CHALK	
						No Core	
	29						
67	66.5 67.45						
						broken-up fragments of nodular flint Moderately strong, bioturbated, weakly nodular Creamy-grey CHALK.	
	30					Traces of marl in top of run	
68	67.45 - 68.75					Moderately strong to strong, grainy textured bioturbated Creamy-grey nodular CHALK.	
						Thin marls recorded in sampled interval at 68.08 & 68.20.	
69	31						
	68.75 - 70.25					Fragment of large nodular flint	
						Moderately weak to strong, bioturbated weakly nodular, Creamy-grey CHALK.	
70						broken-up fragments of nodular flint. More indurated here & to bottom of run	

Comments



LOCAR

PL13A

Broadfield Cottages


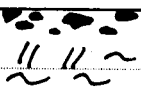



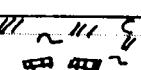

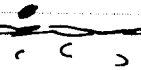
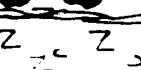


15 d 19

|NGR/lat & long

Ground level SU 549749

logged by

M. Woods 40 mm = 1 m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
70						broken-up fragments of nodular flint	
71	32 70:25 73:25						
72						Very broken-up flint fragments undurated (Gross), spongy CHALK, that rings when struck with hammer. 30mm thick marl seam overlain by 30- 40mm of thin plexus marls. Marl cut by high angle slickensided fracture. Thin styolitic surface below marl.	 
						<u>Cremnocheramus</u>	
73						Moderately strong bioturbated CHALK downward change at thin marly chalk horizon to more argillaceous chalk below large flint fragments	
						No Core	
74	33 73:75 76:55					Locally strong, creamy-grey nodular CHALK. bioclastic debris thin-shelled Sternotauri? Fragments of nodular and finger flints. 20mm thick plexus marl 30mm thick plexus marl Zoophycos-rich interval. Zoophycos preserved as medium-grey marl lenses	     
75							



LOCAR

PL13A

Broadfield Cottages

16 of 19

Client

Borehole diameter

NGR/lat & long

Ground level SU549 749

Drilling method

Casing details

Logged by

Scale

M. Woods

$$40 \text{ mm} = 1 \text{ m}$$

Comments



British
Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Project

LOCAR

Borehole No.

PL13A

Locality Name

Broadfield Carriages

Sheet

17 of 19

Start date

Client

Borehole diameter

NGR/lat & long

End date

Ground level 50 549 749

Drilling method

Casing details

Logged by

M. Woods

Scale

40mm = 1m

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
80						Broken-up nodular flint fragments	
						No Core	
81	37 80.90 81.30					Broken-up nodular flints moderately strong-strong, iron-stained, creamy-grey, nodular CHALK.	
	38 81.30						
82	83.90					Moderately strong to strong, creamy- grey, nodular CHALK. Plexus marks underlain by mostly griotte nodular chalk. Local horizon of very indurated chalk at 83.45.	
						Extremely bioturbated	
83						30mm thick, dark grey plexus marl	
						Strongly bioturbated	
84	39 83.90 86.50					Moderately strong to strong, creamy-grey nodular CHALK. Horizons of marly griotte nodular chalk and locally strongly indurated chalk.	
						High stylolitic marks	
						Strongly bioturbated	
85							

Comments

British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL		Project LOCAR		Borehole No. PL13A		
Start date		Client		Sheet 18 of 19		
End date		Borehole diameter		NGR/lat & long Ground level SU549 749		
Drilling method		Casing details		Logged by M. Woods		
Scale 40mm = 1m						
Depth (m) below Ground	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known) Grp. Fmn.	Description	Legend
85						
86					locally very indurated (= Chalkstone) marly griotte nodular chalk	
	40 86.50 - 87.0				Broken-up flints Intensely hard (strong), creamy yellow nodular chalk. Incipient hardground with chalkstone clasts in marly chalk above	
87					No Core	
	41 87.20 - 89.10					
88					Bands of strong to very strong, creamy yellow nodular chalk, with softer marly nodular chalk between c 30mm plus marl, underlain by conspicuously bioturbated chalk	
					? <i>Mytiloides retusus</i> in sampled interval at 88.60m	
					<i>Cremnoceramus</i> -like shell fragments styloitic marks	
89					<i>Microaster haymanniae</i> ? at 88.93m Possible <i>Mytiloides retusus</i> at 89.10m	
	42 89.10 - 91.60					
90					broken-up flints Strong, nodular, creamy-grey chalk	

Comments

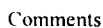


FIGURE 8: Lithological log of the Frogmore Farm
(cored) Borehole [SU 586 719]



Borehole No.	P602
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Sheet	1 of 2
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Borehole diameter

NGR/lat & long
SU 586 719
Ground level

Casing details

Logged by
MAW

Scale
40 mm =
1 m

Drilling method

Depth (m) below ground level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
14.0							
15.0	↑ 15.0 16.50						
16.0							
	✕					Moderately weak, smooth-textured CHALK. Slightly yellowish-stained Chalk at 16.06. No macrofauna	
17.0	16.50 18.0						
						Moderately weak, smooth-textured CHALK. Most of core is highly brecciated. No visible macrofauna	
						(flint remains in sampled interval)	
						orangey-brown clay lens around which Chalk is orange-stained →	---
18.0	✕ 18.0					weak wax-staining of core at 17.82, and in bands below to 18.0. →	
	19.50					Nodular flint occupying full core →	
19.0						Moderately weak, smooth-textured CHALK. Most of core highly brecciated.	
						reddish-brown clay horizon with orangey-yellow stained chalk adjacent.	



Project	LOCAR
Locality Name	Frogmore Farm

Sheet 2 of 2

Client

Borehole diameter

NGR/lat & long
Ground level 586 719

Drilling method

Casing details

Logged by
MAW

Scale
40 mm =
1 cm

Depth (m) below Ground Level	Run no. & Driller's depths	Core Loss	Sampled Intervals	Stratigraphy (where known)		Description	Legend
				Grp.	Fmn.		
19.0				White Chalk Subgroup	? Seaford Chalk	iron-stained chalk Narbon	
20.0	14.50 21.0					Shint occupying full core diameter Moderately weak, smooth-textured Chalk, core highly brecciated. No macrofauna	
21.0						iron-staining gel deposit to small nodular flints	
22.0						END OF CORE	